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OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT PC  
FOURTH FLOOR  
1755 JEFFERSON DAVIS HIGHWAY  
ARLINGTON, VA 22202

EXAMINER
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SHOSHO, CALLIE E

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 17

Application Number: 09/582,216  
Filing Date: July 20, 2000  
Appellant(s): FICKEISEN ET AL.

Kirsten A. Grueneberg  
For Appellant

**MAILED**  
AUG 07 2002  
**GROUP 1700**

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 5/30/02.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct with the exception that in light of the withdrawal of Tsuruoka et al. (U.S. 5,637,644) as a reference against the present claims (see paragraph 9 below), issue 3 of the appeal, as set forth by appellants, is moot.

**(7) *Grouping of Claims***

The rejection of claims 9-35 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

CA 2,182,743	Fickeisen et al.	8-1995
U.S. 4,972,000	Kawashima et al.	11-1990

**NOTE:** Upon reconsideration, the use of Tsuruoka et al. (U.S. 5,637,644) as a reference against the present claims is discontinued.

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 9-35 are rejected under 35 U.S.C. 102(b) as being anticipated by CA 2,182,743.

CA 2,182,743 discloses an aqueous composition free of organic solvents having boiling point less than  $260^{\circ}\text{C}$  at 1 bar wherein the composition comprises 20-90% polymer having glass transition temperature less than  $-25^{\circ}\text{C}$  and 1-80% filler. It is disclosed that the polymer is obtained from 60-100%, preferably 80-100%, and particularly preferably, 90-99.8%  $\text{C}_1\text{-C}_{20}$  alkyl (meth)acrylate and further is obtained from 0-40% monomer such as hydroxyalkyl (meth)acrylate and (meth)acrylamide. It is further disclosed that the polymer has gel content of 0-90%. The filler includes chalk which has mean particle diameter of 2-50  $\mu\text{m}$  and/or quartz powder which has mean particle diameter of 3-50  $\mu\text{m}$ . The aqueous composition also comprises wetting agent or dispersant. There is also disclosed a method wherein the above composition is used as a floor adhesive for floor covering such as textile binding, polyolefin covering linoleum covering, etc. wherein the composition is applied to floor covering and then installing the floor covering. There is also disclosed a method wherein the above composition is applied to substrate such as wood, ceramic tile, and metal surface (page 1, line 40-page 2, line 2, page 2, lines 9-26, page 3, lines 1-13 and 28-29, page 4, lines 42-46, page 5, lines 1-16 and 30-42, and example 2A).

Although there is no explicit disclosure of the number average molecular weight of the soluble fraction of the polymer, given that the polymer is identical to that presently claimed and possesses the same gel content as presently claimed and further given that the same type of polymerization process is "particularly preferred" in both the instant application (see page 4,

lines 38-40) and CA 2,182,743 (see page 3, lines 39-41), it is clear that the number average molecular weight of the soluble fraction would inherently be the same as presently claimed.

In light of the above, it is clear that CA 2,182,743 anticipates the present claims.

2. Claims 9-14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima et al. (U.S. 4,972,000) in view of CA 2,182,743.

Kawashima et al. disclose an aqueous solvent-free coating composition comprising polymer with THF-insolubles, i.e. gel content, of 20-90% and number average molecular weight of the THF-soluble fractions of 700-20,000 wherein the polymer comprises 0.5-100% alkyl (meth)acrylate such as methyl (meth)acrylate, ethyl (meth)acrylate, and butyl (meth)acrylate. The polymer is present in the form of an aqueous dispersion with solids content of 10-65%. The composition also comprises filler. It is further disclosed that the composition is used as an adhesive, which clearly encompasses flooring adhesives, which coats substrates. It is calculated that the composition contains, for instance, 12.5% (100/800) polymer and 87.5% (700/800) filler based on the amount of filler and polymer present in the composition (col.5, lines 4-5, col.6, lines 55-56 and 59-62, col.17, lines 20-22, 31-32, and 47-54, col.20, lines 11-14, 37, and 57-65, col.22, lines 6-11 and 40, and col.38, line 47).

The difference between Kawashima et al. and the present claimed invention is the requirement in the claims of (a) specific type of filler and (b) glass transition temperature of the polymer.

With respect to difference (a), CA 2,182,743, which is drawn to aqueous coating composition, disclose the use of filler such as chalk which has mean particle diameter of 3-50

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$\mu\text{m}$  and/or quartz powder which has mean particle diameter of 3-50  $\mu\text{m}$  in order to produce a composition with good wet and dry grab and good heat distortion resistance (page 1, lines 30-32 and page 4, lines 42-46).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use such filler in the composition of Kawashima et al. in order to produce a composition with good wet and dry grab and good heat distortion resistance, and thereby arrive at the claimed invention.

With respect to difference (b), there is no explicit disclosure of the glass transition temperature of the polymer in Kawashima et al. However, it would have been within the skill level of one of ordinary skill in the art to recognize that the glass transition temperature of the polymer is controlled by varying the type and amount of monomer used to obtain the polymer. Further, one of ordinary skill in the art would have recognized that by controlling the glass transition temperature of the polymer, the polymer properties such as water resistance, tackiness, dispersability, etc are controlled.

Thus, it would have been obvious to one of ordinary skill in the art, absent evidence to the contrary, to control the glass transition temperature of the polymer to values, including those presently claimed, in order to produce a polymer with suitable water resistance, dispersability, tackiness, etc., and thereby arrive at the claimed invention.

**(11) Response to Argument**

(a) Appellants argue that CA 2,182,743 fails to disclose or suggest combination of gel content of polymer, number average molecular weight of the tetrahydrofuran-soluble fraction of polymer, and amount/type of filler as required in the present claims. Appellants argue that the examples of CA 2,182,743 do not teach this combination and further argue that the comparative data in Table 3 of the present specification establishes unexpected or surprising results over the cited prior art.

However, it is noted that page 1, line 10, page 1, line 40-page 2, line 1, and page 4, lines 42-46 of CA 2,182,743 disclose that the composition comprises 1-80%, preferably, 30-70%, particularly preferably, 40-60% filler which is chalk with mean particle diameter of 2-50  $\mu\text{m}$  and/or quartz powder with mean particle diameter of 3-50  $\mu\text{m}$ . Further, page 3, lines 29-31 of CA 2,182,743 disclose that the polymer has gel content of 0-90%, preferably 20-70%, particularly preferably, 40-60%. Thus, it is clear that the amount/type of filler and gel content disclosed by CA 2,182,743 overlap the amount/type filler presently claimed, i.e. 50-90% filler which is chalk with average particle diameter of 2-50  $\mu\text{m}$  and/or quartz flour with average particle diameter of 3-50  $\mu\text{m}$ , as well as gel content presently claimed, i.e. 5-40%.

Although there is no explicit disclosure of the number average molecular weight of the tetrahydrofuran-soluble fraction of polymer, given that the polymer of CA 2,182,743 is identical to that presently claimed, i.e. obtained from 0.5-100% alkyl (meth)acrylates, and possesses the same gel content as presently claimed, and further given that the same type of polymerization



process is “particularly preferred” in both the instant application (see page 4, lines 38-40) and CA 2,182,743 (see page 3, lines 39-41), it is clear that the number average molecular weight of the tetrahydrofuran-soluble fraction of polymer would inherently be the same as presently claimed. It is noted that examiner’s position regarding the number average molecular weight is supported by appellants’ declaration filed 2/15/02, which discloses that CA 2,182,743 does in fact utilize polymers with number average molecular weight of the tetrahydrofuran-soluble fraction less than 30,000 (see for instance example 4 of CA 2,182,743).

Appellants argue, however, that even if the number average molecular weight of the tetrahydrofuran-soluble fraction of the polymer is inherent, CA 2,182,743 does not disclose the claimed invention with “sufficient specificity” because there is no disclosure of the claimed combination of gel content, number average molecular weight of the tetrahydrofuran-soluble fraction of polymer, and amount/type filler. As support for this position, appellants cite MPEP 2131.03. It is noted that this portion of the MPEP states that “what constitutes a “sufficient specificity” is fact dependent. If the claims are drawn to a narrow range, the reference teaches a broad range, and there is evidence of unexpected results with the claimed narrow range, depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with “sufficient specificity” to constitute anticipation of the claims”.

Appellants argue that the comparative data set forth in Table 3 of the present specification provides evidence of unexpected or surprising results. Appellants argue that the data show that good wet bonding capacity is achieved only when a polymer possesses both gel content and number average molecular weight of the tetrahydrofuran-soluble fraction as presently claimed. In Table 3, composition within the scope of the present claims, i.e. comprising

polymer with gel content and number average molecular weight as claimed (example 4), is compared to compositions outside the scope of the present claims, i.e. comprising polymer with number average molecular weight as presently claimed but with gel content outside the scope of the present claims (examples 1-3). From Table 3, it is seen that the presently claimed composition does have superior wet bonding capacity (WBC). However, it is the examiner's position that this data does not establish unexpected or surprising results over the cited prior art, namely, CA 2,182,743, given that the examples 1A and 3A of CA 2,182,743, which by appellants own admission as set forth in the declaration filed 2/15/02 disclose compositions comprising polymer with number average molecular weight outside the scope of the present claims (example 1A) or both number average molecular weight and gel content outside the scope of the present claims (example 3A), also exhibit wet bonding capacity either similar to or superior to the values exhibited by the composition of the present invention. For instance, in Table 3 of the present specification, it is shown that the composition of the present invention, example 4, exhibits wet bonding capacity of 12, 44, and 49 N/5 cm at 10, 20, and 30 minutes, respectively. However, example 1A of CA 2,182,743 exhibits wet grab or wet bonding capacity, of 18, 45, and 55 N/5 cm at 10, 20, and 30 minutes respectively. Thus, contrary to appellants' arguments, a composition need not comprise polymer with both gel content and number average molecular weight of the tetrahydrofuran-soluble fraction as presently claimed in order to exhibit good wet bonding capacity.

Thus, it is the examiner's position that the comparative data does not establish unexpected or surprising results over CA 2,182,743 given that the reference already discloses polymer with gel content and number average molecular weight as presently claimed and further

given that the compositions of CA 2,1872,743 also exhibit the same superior wet bonding capacity as the present invention.

With respect to applicants' 1.132 declaration filed 2/15/02, it is agreed that this declaration establishes that none of the examples of CA 2,182,743 teach the use of polymer with both gel content and number average molecular weight of the tetrahydrofuran-soluble fraction of polymer as presently claimed. However, "applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others", *In re Courtright*, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). Further, "nonpreferred disclosures can be used. A nonpreferred portion of a reference disclosure is just as significant as the preferred portion in assessing the patentability of claims", *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). As discussed above, a fair reading of CA 2,182,743 as a whole discloses the use of polymer with gel content and number average molecular weight of the tetrahydrofuran-soluble fraction of polymer as presently claimed. Further, appellants argue that the examples of CA 2,182,743 do not disclose filler as presently claimed. However, it is noted that examples 1A-4A on page 11 of the reference do disclose the use of chalk filler as presently claimed. Although there is no disclosure in the examples of quartz flour filler or combination of chalk and quartz flour filler as presently claimed, it is noted that pages 4, lines 41-46 of CA 2,182,743 do disclose that the fillers utilized include chalk and/or quartz filler as presently claimed. Additionally, it is noted that the present claims require that the filler is "selected from the group consisting of" chalk, quartz flour, and combinations thereof. Thus, the claims encompass compositions that contain chalk only, quartz flour only, or chalk and quartz

flour. Thus, examples 1A-4A of CA 2,182,473 which disclose the use of chalk, clearly meet the type of filler required in the present claims.

(b) Appellants argue that Kawashima et al. do not disclose the claimed fillers and their particle size and that the combination of Kawashima et al. with CA 2,182,743, as set forth by the examiner, does not result in a composition having the claimed combination of gel content, number average molecular weight of the tetrahydrofuran-soluble fraction and amount/type filler as presently claimed.

Kawashima et al. disclose aqueous composition comprising polymer with insolubles, i.e. gel content, of 20-90% (col.5, lines 4-5) and number average molecular weight of the tetrahydrofuran-soluble fraction of 700-20,000 (col.17, lines 50-54) wherein the polymer is obtained from 0.5-100% alkyl (meth)acrylate (col.17, lines 30-31 and col.6, lines 55-56 and 59-62). It is disclosed that the composition comprises 0-700 parts filler per 100 parts polymer (col.22, lines 9-11). Thus, it is calculated that the composition comprises, for instance, 12.5% (100/800) polymer and 87.5% (700/800) filler based on the amount of filler and polymer present in the composition. While Kawashima et al. disclose the use of filler, there is no explicit disclosure of specific type of filler as presently claimed which is why Kawashima et al. is used in combination with CA 2,182,743 which teaches the use of filler such as chalk which has mean particle diameter of 2-50  $\mu\text{m}$  and/or quartz powder which has mean particle diameter of 3-50  $\mu\text{m}$  in order to produce a composition with good wet and dry grab and good heat distortion resistance (page 1, lines 30-32 and page 4, lines 42-46).

In light of the above, it is the examiner's position that the combination of Kawashima et al. with CA 2,182,743 does in fact disclose combination of polymer with gel content and number average molecular weight of the tetrahydrofuran-soluble fraction and amount/type of filler as presently claimed. Appellants also argue that the superior properties of the present invention establish unexpected or surprising results over the cited prior art. However, it is the examiner's position that the data which is set forth in Table 3 of the present specification which compares composition within the scope of the present claims, i.e. comprising polymer with gel content and number average molecular weight as claimed (example 4), to compositions outside the scope of the present claims, i.e. comprising polymer with number average molecular weight as presently claimed but with gel content outside the scope of the present claims (examples 1-3), does not establish unexpected or surprising results over the combination of Kawashima et al. with CA 2,182,743 given that Kawashima et al. already discloses the combination of gel content and number average molecular weight as presently claimed. The only difference between Kawashima et al. and the present claims is the type of filler which is taught by CA 2,182,743. Absent evidence to the contrary, it is the examiner's position that there is proper motivation to combine the teachings of these two references.

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

Callie E. Shosho  
Examiner  
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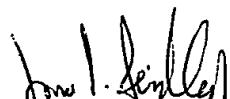
Callie Shosho  
August 6, 2002



Conferees

  
Vasu Jagannathan

**VASU JAGANNATHAN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1700**

  
James Seidleck

OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT  
FOURTH FLOOR  
1755 JEFFERSON DAVIS HIGHWAY  
ARLINGTON, VA 22202